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MINISTRY OF
AGRICULTURE, FISHERIES AND FOOD



**FOOD STANDARDS COMMITTEE
REPORT ON DRIED MILK**



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1962

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FOOD STANDARDS COMMITTEE

The terms of reference of the Food Standards Committee are:

To advise the Secretary of State for Scotland, the Minister of Agriculture, Fisheries and Food, the Minister of Health, and as respects Northern Ireland the Secretary of State for the Home Department, on the composition, description, labelling and advertising of food with particular reference to the exercise of the powers conferred on Ministers by Sections 4, 5 and 7 of the Food and Drugs Act, 1955, and the corresponding provisions in enactments relating to Scotland and Northern Ireland.

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FOOD STANDARDS COMMITTEE

REPORT ON DRIED MILK

Terms of Reference

1. We were asked to review the Public Health (Dried Milk) Regulations, 1923, as amended*, and to make recommendations for any necessary amendment. Our attention was drawn to the standard for dried milk prepared by a Committee of Government Experts on the Code of Principles concerning Milk and Milk Products set up by the Food and Agriculture Organisation of the United Nations. This standard has been submitted to member governments for earnest and sympathetic considerations and is printed as the Appendix to this report.

Main Provisions of the Present Regulations

2. The main provisions of the present regulations are as follows:

- (a) Dried milk described as dried full cream milk must contain not less than 26 per cent milk fat and must bear a label with the following declaration within a surrounding line: 'Dried Full Cream Milk. This tin contains the equivalent of (a) pints of milk'.
- (b) Dried milk described as dried three quarter cream milk must contain not less than 20 per cent milk fat and must bear a label with the following declaration within a surrounding line: 'Dried Partly Skimmed Milk (three quarter cream). Should not be used for babies except under medical advice. This tin contains the equivalent of (a) pints of three quarter cream milk'.
- (c) Dried milk described as dried half cream milk must contain not less than 14 per cent milk fat and must bear a label with the following declaration within a surrounding line: 'Dried Partly Skimmed Milk (Half cream). Should not be used for babies except under medical advice. This tin contains the equivalent of (a) pints of half cream milk'.
- (d) Dried milk described as dried quarter-cream milk must contain not less than 8 per cent milk fat and must bear a label with the following declaration within a surrounding line: 'Dried Partly Skimmed Milk (Quarter cream). Should not be used for babies except under medical advice. This tin contains the equivalent of (a) pints of quarter cream milk'.
- (e) Dried milk containing less than 8 per cent milk fat must bear a label with the following declaration within a surrounding line: 'Dried Machine-Skimmed Milk. Unfit for babies. This tin contains the equivalent of (a) pints of skimmed milk'. 'Dried Skimmed Milk' may be substituted for 'Dried Machine-Skimmed Milk' and 'Not to be used for babies' for 'Unfit for babies'.
- (f) The above provisions do not apply to dried milk in a tin or other receptacle whose gross weight exceeds ten pounds.

*S. R. & O. 1923 No. 1323
S. R. & O. 1927 No. 1093
S. R. & O. 1943 No. 896
S. L. 1948 No. 1123



Main Differences between the F.A.O. Proposals and the Present Standards

3. The upper limit of milk fat for dried skimmed milk proposed by F.A.O. is 1.5 per cent as against 8 per cent.
4. Partly skimmed dried milk, which covers all products with a milk fat content between 1.5 per cent and 26 per cent, is not divided into sub-categories but instead the fat content has always to be declared.
5. A maximum moisture content of 5 per cent is laid down for all types of dried milk.
6. Apart from the declaration of fat content mentioned in paragraph 4 above, no labelling prescriptions are laid down.

Proposals for Amendment

7. We are strongly of the opinion that the upper limit of 1.5 per cent for dried skimmed milk should be incorporated in the United Kingdom standards. Forty years ago, skimmed milk was generally regarded as an inferior product and it was no doubt thought that the addition of a little milk fat improved it. Today, apart from the considerable trade in dried skimmed milk for food manufacture there is a small but not negligible number of people who wish to buy dried skimmed milk free of fat, mainly for health reasons. It is also of importance to the food manufacturer that the formula of the foods he makes is not upset by varying quantities of milk fat. We understand that the normal fat content of dried skimmed milk manufactured in the United Kingdom varies between 0.8 per cent and 1 per cent, but there is nothing to stop a manufacturer selling a product containing up to 8 per cent milk fat as dried skimmed milk.
8. A high moisture content in dried milk has the effect of accelerating its deterioration. Although most dried milk contains only about 3 per cent moisture when it is made, it absorbs atmospheric moisture very readily and, therefore, a reasonable margin is necessary. We think that the addition of an upper limit of 5 per cent for moisture content would be an improvement and recommend accordingly.
9. Dried milk intended for human consumption falls into two main classes; that sold by retail for infant feeding or for special types of diet and that sold in bulk to catering establishments, hospitals and food manufacturers. The present regulations only cover the first class, since they do not apply to dried milk sold in containers of over 10 pounds in weight. We do not think that there is any good reason why the larger packs should continue to fall outside the scope of the regulations. We recommend that the general requirements as to fat content and labelling should apply to all sales of dried milk, but the declarations as to baby feeding and milk equivalence should only apply to containers of 10 pounds or under.
10. We understand that the descriptions 'three-quarter cream' and 'quarter cream' are very little used today and there seems no strong argument for retaining them, particularly to describe the larger commercial packs. 'Half cream', on the other hand, is a well known and long established description for one type of dried milk extensively and necessarily used in baby feeding and it was introduced as a permitted term in the Condensed Milk Regulations no longer ago than 1959. We recommend that it should continue to be a statutory description, but its use should be confined to partly skimmed dried milk with a fat content of not more than 16 per cent and not less than 14 per cent, which alone can properly be described as 'half-cream'. Generally speaking, however, we think that the partly skimmed dried milk class is better dealt with by a declaration of fat content than by three different descriptions which would presumably have

to be increased to four if our recommendation that the lower limit should be reduced from 8 per cent to 1.5 per cent were accepted. We think that the description 'half-cream' should be part of the compulsory declaration as well as and not instead of the fat content.

11. A proviso in the present regulations allows a separate label or notice to be delivered to the purchaser when dried milk is sold by weight and not placed in the tin or other receptacle in which it is delivered to the purchaser until immediately before delivery. We doubt if it was the practice even in 1923 to sell dried milk loose, but we are in any case satisfied that it is not the practice now. We recommend that this proviso be deleted and that there should be a simple prescription such as: 'No person shall sell any dried milk except in a container bearing a label in accordance with the provisions of the schedule to these regulations'.

12. One effect of our proposals would be that it would not be possible in the case of partially skimmed dried milk other than half-cream to insist on a declaration of milk equivalence, since there would no longer be an appropriate description of milk with which to equate it. We are very doubtful if this declaration is of any great value to the purchaser except in the case of dried full cream milk and we do not think its disappearance would have any serious consequences. In any event, as we are proposing the maintenance of the description 'half-cream milk', the table of equivalence will be maintained for baby foods.

13. The related provisions on instructions as to dilution in paragraph 5 of the Schedule to the present regulations should in our view be maintained by a provision that the fluid produced in accordance with any instructions as to dilution should have at least 9 per cent milk solids other than fat. This would have exactly the same effect as the present provision but would obviate the need to link it either with any prescription as to the fat content of the reconstituted milk or with any of the names describing cream content the use of which we have recommended should be discontinued.

Definition

14. The present regulations define dried milk as 'milk, partly skimmed milk, or skimmed milk, which has been concentrated to the form of powder or solid by the removal of water'. The regulations are then applied to 'dried milk to which no other substance has been added and to the dried milk contained in any powder or solid of which not less than 70 per cent consists of dried milk'.

15. While we do not recommend any alteration of the definition, we think that the standards in any regulations should not apply simply to products containing an arbitrary amount of dried milk but to all products labelled in any way to suggest that they are dried milk and to products of the same kind as those to which the standards clearly apply. We certainly do not think products should fall outside the scope of the regulations on account of the addition of sweetening matter, constituents of milk, such as lactose, or small quantities of a number of minor ingredients. All such ingredients should, of course, be declared, and the provisions in paragraph 1 (2) of the schedule regarding the use of the terms 'sweetened', 'modified' and 'compounded' should be maintained. We do not think, however, that the word 'compounded' need be used where the addition to the dried milk consists merely of a minor ingredient essential to the manufacturing process, such as, for example, the addition of sodium bicarbonate at certain seasons of the year to neutralise the acidity of the milk.

Form of the Regulations

16. The general form of the regulations is, of course, very different from that of regulations made in recent years under the Food and Drugs Act, 1955 and

the corresponding Scottish Act. We would naturally recommend that the necessary changes should be made to bring the regulations into line with modern practice, but we do not think there is any need for us to go into detail on this point.

Recommendations

17. We therefore recommend that:

- (a) Dried milk described as dried full cream milk should contain not less than 26 per cent milk fat, and not more than 5 per cent moisture and should bear a label with the following declaration within a surrounding line if sold in a container of 10 pounds gross weight or less: 'Dried Full Cream Milk. Contains the equivalent of (a) pints of milk', and, if sold in a container of more than 10 pounds gross weight, should bear a label with the following declaration within a surrounding line: 'Dried Full Cream Milk'.
- (b) Dried milk described as dried partly skimmed milk should contain not less than 1.5 per cent milk fat and not more than 5 per cent moisture and should bear a label with the following declaration within a surrounding line if sold in a container of 10 pounds gross weight or less: 'Dried Partly Skimmed Milk. Contains not less than x per cent milk fat. Should not be used for babies except under medical advice'. (The minimum milk fat content of the product should be added at ' x ') except that, if the product contains not less than 14 per cent and not more than 16 per cent milk fat, the following declaration should be used instead: 'Dried Partly Skimmed Milk (Half cream) contains 14-16 per cent milk fat. Should not be used for babies except under medical advice. Contains the equivalent of (a) pints of half cream milk'. Dried partly skimmed milk sold in a container of more than 10 pounds gross weight should bear a label with the following declaration within a surrounding line. 'Dried Partly Skimmed Milk. Contains not less than x per cent milk fat' or, if the product contains not less than 14 per cent and not more than 16 per cent milk fat the following alternative declaration should be used instead: 'Dried Partly Skimmed Milk. Half cream. Contains 14-16 per cent milk fat'.
- (c) Dried milk containing less than 1.5 per cent milk fat should contain not more than 5 per cent moisture and, if sold in containers of 10 pounds gross weight or less, should bear a label with the following declaration within a surrounding line: 'Dried Machine-Skimmed Milk. Unfit for babies. Contains the equivalent of (a) pints of skimmed milk' and, if sold in a container of more than ten pounds gross weight, should bear a label with the following declaration within a surrounding line: 'Dried Machine-Skimmed Milk'. 'Dried Skimmed Milk' should be permitted to be substituted for 'Dried Machine-Skimmed Milk' and 'Not to be used for babies' for 'Unfit for babies'.
- (d) The two provisos to regulation 4 of the present regulations should be deleted (paragraphs 10 and 11).
- (e) The provisions of the present regulations on instructions as to dilution should be retained with suitable modifications linking them to a milk solids other than fat content of 9 per cent in the reconstituted milk (paragraph 13).
- (f) Some amendment to the application of the regulations is required (paragraph 15).

April, 1962

APPENDIX
FOOD AND AGRICULTURE ORGANISATION OF
THE UNITED NATIONS

Extract from
**Report of the Fourth Session of the Committee of
Government Experts on the Code of Principles
concerning Milk and Milk Products**

STANDARD ADOPTED BY THE COMMITTEE AND SUBMITTED
TO GOVERNMENTS FOR ACCEPTANCE
STANDARD No. 5
FOR
WHOLE MILK POWDER
PARTLY SKIMMED MILK POWDER
SKIMMED MILK POWDER

1. Definition:

Powder obtained by the removal of water only from milk, partly skimmed milk or skimmed milk.

2. Permitted Additions:

Harmless substances necessary for the manufacturing process.

3. Designations and Standards:

3.1 Whole milk powder

Dried full cream milk
Full cream milk powder
Dry whole milk
Milk powder
Dried milk

shall contain not less than 26 per cent of fat by weight in the product and not more than 5 per cent of water by weight in the product*.

3.2 Partly skimmed milk powder

Partly skimmed dried milk

shall contain between 1.5 per cent and 26 per cent of fat by weight in the product and not more than 5 per cent of water by weight in the product. The fat percentage by weight in the product shall be declared.

3.3 Nonfat dry milk

Dried skimmed milk
Skimmed milk powder

shall contain not more than 1.5 per cent of fat by weight in the product and not more than 5 per cent of water by weight in the product.

**Note:* For an interim period ending 1 January, 1965, the product may, where in accordance with national legislation already existing on 10 March, 1961, contain less than 26 per cent but not less than 24 per cent of fat by weight provided:

- (a) The product is packed in units of not less than 25 kg.
- (b) The product is designated exclusively as 'milk powder' or 'dried milk'.
- (c) The product is labelled 'contains not less than 24 per cent fat by weight'.



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